

In the Claims:

Please amend the claims as follows:

14. (Amended) A laser scanner measuring system for measuring an object comprising:
an emitter unit having a laser, a beam deflector unit and an optical emitter system which
define a scanning beam path and a scanning plane;
a receiver unit including a photo detector disposed in the focal plane of an optical receiver
system for a receiver beam path, wherein the surface normal of said optical receiver system is
parallel with the scanning beam path;
a dark field stop disposed ahead of said photo detector in the receiver beam path in the
focal plane of said optical receiver system; and
a beam splitter ahead of said dark field stop for splitting a partial beam from the receiver
beam path, said photo detector including a photo diode arranged in said partial beam, said photo
diode being disposed approximately in the focal point of said optical receiver system.

15. (Amended) A laser scanner measuring system according to Claim 14, wherein said
emitter unit and said receiver unit are disposed on the same side relative to the object to be measured.

17. (Amended) A laser scanner measuring system according to Claim 14, further
comprising at least one retro reflector or a retro-reflecting marker disposed inside said emitter
unit.

18. (Amended) A laser scanner measuring system according to Claim 14, further

comprising additional receiver units or retro reflectors disposed at an angle different from 0° or 180° relative to an optical axis of the scanner unit in the scanning plane.

20. (Amended) A laser scanner measuring system according to Claim 19, wherein there is formed a grid having lines oriented orthogonally with respect to the scanning direction.

22. (Amended) A laser scanner measuring system according to Claim 21, where there is formed a grid having lines oriented parallel with respect to the scanning direction.

23. (Amended) A laser scanner measuring system according to Claim 14, further comprising optical elements disposed in the scanning beam path and/or the receiver beam path for radiation of different polarisation.

24. (Amended) A laser scanner measuring system according to Claim 23, wherein said optical elements comprise at least one of a polarising beam splitter, a Wollaston prism, and a retarding plate of a Glan-Thomson prism.

25. (Amended) A laser scanner measuring system according to Claim 14, further comprising filters selective in terms of wavelength disposed in the receiver beam path.

26. (Amended) A laser scanner measuring system according to Claim 25, wherein said filters are interference filters, color filters or cut-off filters.

27. (Amended) A laser scanner measuring system according to Claim 14, wherein said emitter unit and said receiver unit from a single combination unit and wherein a reference beam path is realised in the combination unit, in the outside space or by means of a light guide, which is superimposed by the beam path coming from the object to be measured in such a way that the resulting interference pattern which varies locally and in the course of time is detected by means of at least one detector element.

28. (Amended) A laser scanner measuring system according to Claim 14, wherein said measuring system is adapted to control a production process.

29. (Amended) A laser scanner measuring system for measuring an object comprising an emitter unit having a laser, a beam deflector unit and an optical emitter system, which define a scanning beam path as well as a scanning plane; and a receiver unit including a photo detector disposed in the focal plane of an optical receiver system for a receiver beam path, the surface normal of said optical receiver system being parallel with the scanning beam path, and said photo detector being a photo diode array or a position-resolving photo diode.

32. (Amended) A laser scanner measuring system according to Claim 29, further comprising at least one retro reflector or a retro-reflecting marker disposed inside said emitter unit.

33. (Amended) A laser scanner measuring system according to Claim 29, further comprising additional receiver units or retro reflectors disposed at an angle different from 0° or 180° relative to an optical axis of the scanner unit in the scanning plane.

35. (Amended) A laser scanner measuring system according to Claim 34, wherein there is formed a grid having lines oriented orthogonally with respect to the scanning direction.

37. (Amended) A laser scanning measuring system according to Claim 36, where there is formed a grid having lines oriented parallel with respect to the scanning direction.

In the Abstract:

Please add the abstract attached hereto on a separate sheet.

In the Drawings:

Submitted herewith is a Request for Drawing Change Approval.